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10 July 2001

Mr. Kenneth Bardo  
Project Manager  
United States Environmental Protection Agency  
Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: EKCO/World Kitchen, Massillon, Ohio, Facility  
U.S. EPA I.D. No. OHD 045-205-424  
Environmental Indicator (EI) RCRIS code (CA725) Form

Dear Mr. Bardo:

On behalf of our client, American Home Products Corporation (AHPC), please find attached one copy of the Environmental Indicator (EI) RCRIS code (CA725) Form for the EKCO World Kitchen facility in Massillon, Ohio.

You may contact me at (610) 701-7360 or Mr. Matthew Basso at (973) 683-2273 if you have any questions or comments regarding this report.

Very truly yours,

ROY F. WESTON, INC.

*Thomas Cornuet*

Thomas Cornuet, P.G.  
Project Manager

Attachment

cc: M. Basso, AHPC  
G. Smith, AHPC  
P. Howard, AHPC  
J. Burman, EKCO  
L. Bove, WESTON  
T. Stevens, WESTON



## ENCLOSURE 2

**DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION**  
**RCRA Corrective Action**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
**Current Human Exposures Under Control**

**Facility Name:** EKCO World Kitchen Facility  
**Facility Address:** 359 State Street, Extension NW, Massillon, Ohio 44648  
**Facility EPA ID #:** OHD045205424

1. Has **all** available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

  X   If yes – check here and continue with #2 below.  
       If no – re-evaluate existing data, or  
       if data are not available skip to #6 and enter “IN” (more information needed) status code.

### **BACKGROUND**

#### **Definition of Environmental Indicators (for the RCRA Corrective Action)**

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

#### **Definition of “Current Human Exposures Under Control” EI**

A positive “Current Human Exposures Under Control” EI determination (“YE” status code) indicates that there are no “unacceptable” human exposures to “contamination” (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all “contamination” subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

#### **Relationship of EI to Final Remedies**

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993 (GPRA). The “Current Human Exposures Under Control” EI are for reasonably expected human exposures under current land- and groundwater-use conditions **ONLY**, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program’s overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

#### **Duration/Applicability of EI Determinations**

EI Determinations status codes should remain in RCRIS national database **ONLY** as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 2

2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be “contaminated”<sup>1</sup> above appropriately protective risk-based “levels” (applicable promulgated standards, as well as other appropriate standards guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs, or AOCs)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale/Key Contaminants</u>
Groundwater	X			TCE, VC, 1,1-DCE, 1,2-DCE, 1,1,1-TCA above MCLs
Air (indoors) <sup>2</sup>		X		Periodic monitoring showed no exceedances of OSHA Permissible Exposure Levels
Surface Soil (e.g., <2 ft)	X			TCE, 1,1-DCE above Preliminary Remediation Goals (PRGs)
Surface Water		X		No exceedances above NPDES permit level
Sediment		X		Sampling during the RFI revealed no detections above Soil Performance Standards
Subsurf. Soil (e.g., >2 ft)	X			TCE, 1,1-DCE above PRGs
Air (outdoors)		X		Air monitoring conducted during Site Investigation activities revealed no detectable levels of VOCs

\_\_\_\_\_ If no (for all media) – skip to #6, and enter “YE,” status code after providing or citing appropriate “levels,” and referencing sufficient supporting documentation demonstrating that these “levels” are not exceeded.

X \_\_\_\_\_ If yes (for any media) – continue after identifying key contaminants in each “contaminated” medium, citing appropriate “levels” (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

\_\_\_\_\_ If unknown (for any media) – skip to #6 and enter “IN” status code.

<sup>1</sup> “Contamination” and “Contaminated” describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based “levels” (for the media, that identify risks within the acceptable risk range).

<sup>2</sup> Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggests that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in contaminants) does not present unacceptable risks.

Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 3

Rationale and Reference(s):

**Facility Description**

The EKCO facility occupies approximately 13 acres in the town of Massillon, Stark County, Ohio (Figure 1-1). The area surrounding the site is largely urban and industrial. Land use to the northwest is more rural with more open space. The EKCO property is triangular in shape and lies an estimated 1,500 ft west of the Tuscarawas River. The facility is bordered to the north by Newman Creek, while the Penn Central and the Baltimore and Ohio Railroads border the EKCO property to the west and east, respectively.

A variety of businesses operate adjacent to the EKCO plant. These include Ohio Packaging (paper) to the south, sand and gravel quarries to the west and northwest, Carter Lumber (retail) and Price Brothers, Inc. (concrete pipe) to the north and the Ohio Water Service (public water supply) waterworks and an automobile reclamation site to the east and northeast. A relatively large inactive municipal landfill exists just east of the Ohio Water Service facility. The landfill is believed to have been principally used by the City of Massillon; however, other users may also have been involved. The landfill was apparently informally operated, that is, no weigh station or access control was believed to have been present, and the landfill was not fenced. It is unclear whether records of ownership, methods of operation, or methods of "closure" have been retained. The Baltimore and Ohio Railroad has numerous spurs and sidetracks adjacent to the EKCO plant which are used for the storage of rail cars and track maintenance vehicles.

**Facility History**

In 1945, the EKCO Massillon facility was manufacturing aluminum and stainless steel cookware. By 1951, with the United States' involvement in the Korean Conflict, the plant was manufacturing 90mm and 105mm shell casings for the military. The resulting increase in production necessitated the drilling of two production wells (W-1 and W-2) at the facility. In 1953, a sewer was constructed which carried the plant waste to a discharge point along Newman Creek. At approximately the same time, a surface impoundment was constructed along the northern property boundary adjacent to Newman Creek. Wastewaters from manufacturing were discharged to the surface impoundment.

During 1954, the EKCO facility began alternate manufacturing operations. The primary function of these operations was returned to manufacturing cookware at the facility. Solvents (primarily trichloroethene [TCE] or 1,1,1-trichloroethane [1,1,1-TCA]) were used to clean the products prior to continuing production. However, 1,1,1-TCA and TCE were never used at the same time. Sometime during the mid-1960's, EKCO stopped using TCE and began using 1,1,1-TCA; use of TCE was reinitiated in the 1980's.

By 1967, trends in the cookware manufacturing industry had changed, resulting in the installation of porcelain- and Teflon-coating units at the EKCO facility. In 1969, with the development of new NPDES regulations and permit requirements, the surface impoundment was approved and permitted by the State of Ohio to accept waste products associated with plant activities. These waste products have included:

- Deionizers from plant operations (hydrochloric acid and sodium hydroxide).
- Washings and waste material from manufacturing porcelain-Teflon-coated aluminum cookware (aluminum frit, various coloring inorganics oxides, lead, cadmium, selenium, cobalt).
- Alkaline washer fluids to clean aluminum cookware.

In July 1974, NPDES Permit No. C-3094BD was issued to the EKCO facility. As the 1970's progressed, EKCO discontinued the manufacturing of aluminum and porcelain cookware and use of the lagoon ceased in 1977. By the end of 1978, all copper-coating operations had ended and the principal products manufactured at the facility became pressed and coated non-stick bakeware.

Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 4

Correspondence between EKCO and the OEPA identified a solvent spill which had occurred between 1979 and 1980 as the only major recorded spill at the facility. The spill was in the vicinity of process water well W-10. Neither the exact location nor the extent of the spill was documented.

The surface impoundment was reactivated in 1980 under the existing NPDES permit and received housing degreaser filter water until mid-1984. The surface impoundment was finally decommissioned in December 1985. In March 1984, when the plant applied for a renewal of their NPDES permit, analysis of on-site well water for volatile organics was required. The analysis indicated the presence of 1,1,1-TCA and TCE. This discovery resulted in subsequent investigations at EKCO.

The waste stream was diverted from the surface impoundment to discharge in Newman Creek in December 1985. At that time, the surface impoundment (lagoon) was permanently taken out of service. During 1993 and 1994, Roy F. Weston, Inc. (WESTON®) was retained by AHPC to pursue a clean closure for the lagoon. Closure activities were conducted at the site from August 1993 to June 1994. A closure certification report was submitted to the OEPA in July 1994, and approval of the lagoon closure was issued in January 1995. Now that the lagoon is officially closed, quarterly groundwater sampling is no longer required for the RCRA lagoon closure.

EKCO continues to manufacture pressed and coated non-stick bakeware at the Massillon facility. A silicon-based compound is presently used to coat the bakeware to create the non-stick surface.

#### Current Site Conditions

The most recent soil sampling program was performed at the EKCO facility on 20 through 22 September 2000. Since 9 years had passed since the previous soil sampling program was completed, it was anticipated that the concentrations of target VOCs at the site might have decreased due to natural attenuation. Therefore, it was decided that additional subsurface soil sampling was necessary to both confirm and delineate the extent of target VOCs in the proposed remediation areas. The target VOCs at the EKCO site include TCE, 1,2-DCE, 1,1-DCE, and 1,1,1-TCA.

Soil borings were completed at 19 locations across the site. The soil boring locations were selected on the basis of results obtained from previous borings drilled in 1988 and 1991, and also on requests made by the U.S. EPA.

The soil analytical results were compared with the following U.S. EPA Region 5 industrial soil preliminary remediation goals (PRGs):

<u>Contaminant</u>	<u>Industrial PRG (µg/kg)</u>
TCE	6,100
1,2-DCE	150,000
1,1-DCE	120
1,1,1-TCA	1,400,000

Soil TCE concentrations exceeded the PRG at 6 of the 19 sample locations. The highest detected levels were found under the northwest portion of the facility beneath the building foundation. Cis-1,2-DCE and 1,1,1-TCA concentrations did not exceed their respective PRGs at any of the soil sample locations, while concentrations of 1,1-DCE in excess of its PRG were detected at four locations, with the highest levels again found under the northwest portion of the building foundation. The building's concrete floor slab currently prevents human exposure to any soil contamination located beneath the building. Soil remediation measures have been approved by the EPA and will be put in place in 2001 to treat the VOC-contaminated soil.

Groundwater sampling was conducted at the EKCO site in December 1988, September 1991, and March 1992. In addition to these three sampling events, selected wells were sampled quarterly from 1989 to 1995 as part of the lagoon

Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 5

closure plan for the site. Groundwater samples have been collected semiannually since 1995, with the most recent sampling event occurring in February 2001.

The VOCs detected in groundwater were predominantly TCE, 1,1,1-TCA, and their respective breakdown products, including 1,1-DCE, cis-1,2-DCE, trans-1,2-DCE, and vinyl chloride. Conservative action levels\* (MCLs) for the contaminants are the following:

TCE	–	0.005 mg/L
1,1-DCE	–	0.007 mg/L
1,2-DCE (cis) –		0.07 mg/L
1,2-DCE (trans)		0.100 mg/L
Vinyl chloride	–	0.002 mg/L
1,1,1-TCA	–	0.2 mg/L

\*These conservative action levels are used for the purpose of this analysis, even though there is no current or reasonably anticipated use of groundwater for drinking purposes.

The results of recent sampling show that MCLs were only exceeded for three compounds: TCE, vinyl chloride, and 1,1-DCE. A review of the historical data for these three analytes shows a general decreasing trend with the detected concentrations in the sampled wells either below or approaching the respective MCLs. Groundwater in the water-bearing zones is currently contained on-site and any VOCs that exist in the groundwater at the site are being recovered by the site production wells and are being treated by an on-site air stripper system.

#### References

Roy F. Weston, Inc. March 2001. "2000 Groundwater Monitoring Report." Prepared for EKCO Housewares, Inc., Massillon, Ohio.

Roy F. Weston, Inc. February 2001. "Final Soil Investigation Report for the EKCO World Kitchen Facility, Massillon, Ohio." Prepared for American Home Products Corporation, One Campus Drive, Parsippany, New Jersey.

Roy F. Weston, Inc. May 1993. "RCRA Facility Investigation Report." Prepared for EKCO Housewares, Inc., Massillon, Ohio

- Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

#### Summary Exposure Pathway Evaluation Table

##### Potential Human Receptors (Under Current Conditions)

<u>"Contaminated" Media</u>	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food <sup>3</sup>
Groundwater	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>			<u>No</u>
Air (indoors)	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>			
Soil (surface, e.g., <2 ft)	<u>No</u>	<u>No</u>	<u>No</u>	<u>Yes</u>	<u>Yes</u>	<u>No</u>	<u>No</u>
Surface Water	<u>          </u>	<u>          </u>			<u>          </u>	<u>          </u>	<u>          </u>

<sup>3</sup> Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 6

Sediment	_____	_____	_____	_____	_____
Soil (subsurface e.g., >2 ft)	_____	_____	Yes	_____	No
Air (outdoors)	_____	_____	_____	_____	_____

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated" as identified in #2 above.
2. Enter "yes" or "no" for potential "completeness" under each "Contaminated" Media – Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media – Human Receptor combinations (Pathways) do not have check spaces (" "). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

- \_\_\_\_\_ If no (pathways are not complete for any contaminated media-receptor combination) – skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).
- X   If yes (pathways are complete for any "Contaminated Media" – Human Receptor combination) – continue after providing supporting explanation.
- \_\_\_\_\_ If unknown (for any "Contaminated" Media – Human Receptor combination) – skip to #6 and enter "IN" status code.

Rationale and Reference(s):

Residents via "contaminated":

- Groundwater = no complete pathway, September 1991 and March 1992 groundwater sampling results from all site monitor wells show that no VOC-contaminated groundwater is migrating off-site. The continuous pumping of the facility's water supply wells has created a cone of depression which captures the on-site groundwater, thereby preventing off-site migration.
- Soil (surface) = no complete pathway, surface soil contamination is restricted to four onsite locations. The contaminated surface soil at these locations is overlain by either concrete or thick gravel and is not exposed. Also, there are no residences on-site.

Workers via "contaminated":

- Groundwater = no complete pathway, contaminated groundwater from water-bearing zones beneath the facility is pumped from production wells W-1 and W-10 and is treated in an on-site stripper for VOC removal, then either routed to various plant processes or discharged to a nearby creek via an underground storm sewer

Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 7

- Soil (surface) = no complete pathway, landscapers/maintenance workers are not expected to contact surface soil contamination under current conditions. However, no landscaping/maintenance activities are currently conducted on-site nor are any anticipated. If, in the future, such activities should occur, institutional controls such as fencing, posting and other health and safety measures will be utilized to prevent exposure. Currently contaminated surface soil is overlain by either concrete, thick gravel, or grass, thus preventing exposure.

Day-Care via “contaminated”:

- Groundwater = no complete pathway – no day-care facilities exist near contaminated groundwater and therefore no exposures are expected to occur.
- Soil (surface) = no complete pathway – no day-care facilities exist in close proximity to contaminated surface soil.

Construction (workers) via “contaminated:”

- Groundwater = no complete pathway – no construction in area of groundwater contamination is planned or anticipated. The USEPA will be notified if this should change.
- Soil (surface) = complete pathway, although no construction in areas of surface soil contamination is planned or anticipated. The USEPA will be notified if this should change.
- Soil (subsurface)= complete pathway, although no construction in areas of subsurface soil contamination is planned or anticipated. The USEPA will be notified if this should change.

Trespassers via “contaminated”:

- Soil (surface) = complete pathway, although no trespassers are expected on the facility due to the presence of around the clock security. Additionally, trespassers would not be exposed to surface soil contamination due to the presence of gravel or concrete cover over the contaminated areas. If construction activities do occur, trespassers will be warned of potential dangers through signs and will be prevented from accessing the area via fencing and/or other barriers.



Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 8

Recreation (users) via “contaminated”:

- Soil (surface) = no complete pathway – there are no recreational areas on the property. Recreational users are not expected to come in contact with surface soil contamination since the facility maintains around the clock security. Additionally, recreational users would not be exposed to surface soil contamination due to the presence of gravel or concrete cover over the contaminated areas.

Food contaminated via:

- Groundwater = no complete pathway – no food items are produced/grown in contact with “contaminated” groundwater.
- Soil (surface) = no complete pathway – no food items are produced/grown in contact with “contaminated” surface soil.
- Soil (subsurface) = no complete pathway – no food items are produced/grown in contact with “contaminated” subsurface soil.

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be “**significant**”<sup>4</sup> (i.e., potentially “unacceptable” because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable “levels” (used to identify the “contamination”); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable “levels”) could result in greater than acceptable risks)?

  X   If no (exposures can not be reasonably expected to be significant (i.e., potentially “unacceptable”) for any complete exposure pathway) – skip to #6 and enter “YE” status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”

       If yes (exposures could be reasonably expected to be “significant” (i.e., potentially “unacceptable”) for any complete exposure pathway) – continue after providing a description (of each potentially “unacceptable” exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to “contamination” (identified in #3) are not expected to be “significant.”

       If unknown (for any complete pathway) – skip to #6 and enter “IN” status code

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<sup>4</sup> If there is any question on whether the identified exposures are “significant” (i.e., potentially “unacceptable”) consult a human health Risk Assessment specialist with appropriate education, training and experience.

Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 9

Rationale and Reference(s):

Construction (workers) via "contaminated":

- Soil (surface) = Complete pathway, although no construction in areas of surface soil contamination is planned or anticipated. If construction activities do occur, exposure of workers will be limited through use of appropriate personnel protective equipment, including respiratory protection as described in the Site Health and Safety Plan. Exposure of other site workers will be prevented through use of signs and barriers, including fencing. Appropriate notification will be made to all workers prior to conducting activities in the areas of concern.
- Soil (subsurface) = Complete pathway, although no construction in areas of subsurface soil contamination is planned or anticipated. If construction activities do occur, exposure of workers will be limited through use of appropriate personnel protective equipment, including respiratory protection as described in the Site Health and Safety Plan. Exposure of other site workers will be prevented through use of signs and barriers, including fencing. Appropriate notification will be made to all workers prior to conducting activities in the areas of concern.

Trespassers via "contaminated":

- Soil (surface) = Complete pathway, although no trespassers are expected on the facility due to the presence of around-the-clock security. Additionally, trespassers would not be exposed to surface soil contamination due to the presence of gravel or concrete cover over the contaminated areas. If construction activities do occur, trespassers will be warned of potential dangers through signs and will be prevented from accessing the area via fencing and/or other barriers.

Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 10

5. Can the “significant” exposures (identified in #4) be shown to be within **acceptable** limits?

\_\_\_\_\_ If yes (all “significant” exposures have been shown to be within acceptable limits) – continue and enter “YE” after summarizing and referencing documentation justifying why all “significant” exposures to “contamination” are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

\_\_\_\_\_ If no (there are current exposures that can be reasonably expected to be “unacceptable”) – continue and enter “NO” status code after providing a description of each potentially “unacceptable” exposure.

\_\_\_\_\_ If unknown (for any potentially “unacceptable” exposure) – continue and enter “IN” status code.

Rationale and Reference(s):

Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)  
Page 11

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725) and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

  X   YE – Yes, “Current Human Exposures Under Control” has been verified. Based on a review of the information contained in this EI Determination, “Current Human Exposures” are expected to be “Under Control” at the \_\_\_\_\_ facility, EPA ID # \_\_\_\_\_, located at \_\_\_\_\_ under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

       NO – “Current Human Exposures” are NOT “Under Control.”

       IN – More information is needed to make a determination.

Completed by (signature) \_\_\_\_\_  
(print) \_\_\_\_\_  
(title) \_\_\_\_\_

Date \_\_\_\_\_

Supervisor (signature) \_\_\_\_\_  
(print) \_\_\_\_\_  
(title) \_\_\_\_\_  
(EPA Region or State) \_\_\_\_\_

Date \_\_\_\_\_

Locations where References may be found:

Contact telephone and e-mail numbers

(name) \_\_\_\_\_  
(phone #) \_\_\_\_\_  
(email) \_\_\_\_\_

**FINAL NOTE: THE HUMAN EXPOSURE EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.**



Roy F. Weston, Inc.  
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West Chester, Pennsylvania 19380  
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4 May 2001

Mr. Kenneth Bardo  
Project Manager  
United States Environmental Protection Agency  
Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604-3590

Re: EKCO/World Kitchen, Massillon, Ohio, Facility  
Second Addendum to the Corrective Measures Study  
Draft Documentation of Environmental Indicator Determination

Dear Mr. Bardo:

On behalf of our client, American Home Products Corporation (AHPC), please find attached one copy each of the Second Addendum to the Corrective Measures Study and Draft Documentation of Environmental Indicator Determination for the EKCO World Kitchen facility in Massillon, Ohio.

You may contact me at (610) 701-7360 or Mr. Matthew Basso at (973) 683-2273, if you have any questions or comments regarding these reports.

Very truly yours,

ROY F. WESTON, INC.

*Thomas Cornuet*

Thomas Cornuet, P.G.  
Project Manager

Attachment

cc: M. Basso, AHPC (w/attachment)  
J. Burman, EKCO (w/attachment)  
L. Bove, WESTON (w/o attachment)

## DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

### RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA750)

#### Migration of Contaminated Groundwater Under Control

Facility Name: EKCO Housewares, Inc.  
Facility Address: 359 State Ave., Ext. N.W., Massillon, OH 44648-0560  
Facility EPA ID #: OHD 045 205 424

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

  X   If yes - check here and continue with #2 below.  
       If no - re-evaluate existing data, or  
       if data are not available skip to #6 and enter "IN" (more information needed) status code.

#### **BACKGROUND**

##### **Definition of Environmental Indicators (for the RCRA Corrective Action)**

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

##### **Definition of "Migration of Contaminated Groundwater Under Control" EI**

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

##### **Relationship of EI to Final Remedies**

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

##### **Duration / Applicability of EI Determinations**

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

**Migration of Contaminated Groundwater Under Control**  
**Environmental Indicator (EI) RCRIS code (CA750)**

Page 2

2. Is groundwater known or reasonably suspected to be "contaminated"<sup>1</sup> above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

  X   If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.

       If no - skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."

       If unknown - skip to #8 and enter "IN" status code.

**Rationale and Reference(s):**

Groundwater in unconsolidated sand and gravel deposits and sandstone bedrock beneath the facility is predominantly contaminated with trichloroethylene (TCE), 1,1,1-trichloroethane (1,1,1-TCA), and their breakdown products, 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethylene (1,1-DCE), 1,2-dichloroethylene (1,2-DCE), and vinyl chloride. See March 2000, Groundwater Monitoring Report for 1999.

Maximum concentrations of contaminants and their respective MCL for eight wells currently monitored at the facility are:

<u>Contaminant</u>	<u>MCL</u>	<u>Maximum Concentration</u>
TCE	5 ppb	130 ppb
1,1,1-TCA	200 ppb	630 ppb
1,1-DCE	7 ppb	22 ppb
1,2-DCE	70 ppb	170 ppb
vinyl chloride	2 ppb	38 ppb
1,1-DCA	-	63 ppb

---

<sup>1</sup> "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

**Migration of Contaminated Groundwater Under Control**  
**Environmental Indicator (EI) RCRIS code (CA750)**

Page 3

3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater"<sup>2</sup> as defined by the monitoring locations designated at the time of this determination)?

  X   If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the "existing area of groundwater contamination"<sup>2</sup>).

       If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination"<sup>2</sup>) - skip to #8 and enter "NO" status code, after providing an explanation.

       If unknown - skip to #8 and enter "IN" status code.

**Rationale and Reference(s):**

Two on-site production wells (W-1 and W-10) have been used since February 1986 as recovery wells to contain and collect the contaminant plume. Both wells are pumped at an average rate of 500 gpm. At least one well is pumping at all times in order to maintain control of the on-site groundwater contaminant plume. Groundwater contour maps of the water-bearing units show that groundwater is flowing inward toward the production wells. The captured groundwater is routed to an on-site air stripper system. The majority of treated groundwater is discharged to Newman Creek under an NPDES Permit and a lesser portion is used on-site in the manufacturing process. No VOC-contaminated groundwater is migrating off-site (see March 2000, Groundwater Monitoring Report for 1999).

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<sup>2</sup> "existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.



**Migration of Contaminated Groundwater Under Control**  
**Environmental Indicator (EI) RCRIS code (CA750)**  
Page 4

4. Does "contaminated" groundwater **discharge** into **surface water** bodies?

\_\_\_\_\_ If yes - continue after identifying potentially affected surface water bodies.

  X   If no - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.

\_\_\_\_\_ If unknown - skip to #8 and enter "IN" status code.

**Rationale and Reference(s):**

Pumping the two recovery wells creates a hydraulic gradient that prevents contaminated groundwater from discharging to Newman Creek. Shallow groundwater at the facility boundary near Newman Creek flows toward the pumping production wells (see attached Figure 4-2). Geological cross-sections also show that the shallow water table lies in the sand and gravel deposits below the Newman Creek bed (see attached Figure 4-21).

Contaminated groundwater is treated in an on-site air stripper system and discharged to Newman Creek under an NPDES permit. Results of surface water and sediment samples from Newman Creek show that the discharge of treated groundwater has not resulted in an adverse environmental impact to the creek. Monitoring of Outfall #001 shows that treated groundwater is meeting the permitted effluent limits (see March 2000, Groundwater Monitoring Report for 1999).

**Migration of Contaminated Groundwater Under Control**  
**Environmental Indicator (EI) RCRIS code (CA750)**

Page 5

5. Is the **discharge** of "contaminated" groundwater into surface water likely to be "**insignificant**" (i.e., the maximum concentration<sup>3</sup> of each contaminant discharging into surface water is less than 10 times their appropriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

\_\_\_\_\_ If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration<sup>3</sup> of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

\_\_\_\_\_ If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration<sup>3</sup> of each contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations<sup>3</sup> greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

\_\_\_\_\_ If unknown - enter "IN" status code in #8.

Rationale and Reference(s):

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<sup>3</sup> As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

**Migration of Contaminated Groundwater Under Control**  
**Environmental Indicator (EI) RCRIS code (CA750)**  
Page 6

6. Can the **discharge** of "contaminated" groundwater into surface water be shown to be "**currently acceptable**" (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented<sup>4</sup>)?

\_\_\_\_\_ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment,<sup>5</sup> appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

\_\_\_\_\_ If no - (the discharge of "contaminated" groundwater can not be shown to be "**currently acceptable**") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

\_\_\_\_\_ If unknown - skip to 8 and enter "IN" status code.

Rationale and Reference(s):

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<sup>4</sup> Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

<sup>5</sup> The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

**Migration of Contaminated Groundwater Under Control**  
**Environmental Indicator (EI) RCRIS code (CA750)**

Page 7

7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

  X   If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."

       If no - enter "NO" status code in #8.

       If unknown - enter "IN" status code in #8.

**Rationale and Reference(s):**

Groundwater is currently monitored monthly at the two recovery wells. Under a modified groundwater sampling program, semi-annual groundwater elevation measurements are made at all wells, four wells are sampled semi-annually, and two wells are sampled annually (see March 2000, Groundwater Monitoring Report for 1999).

Long-term groundwater monitoring is part of the final remedy to be published in EPA's Final Decision and Response to Comments due in 2001. A CMI Consent Order will be entered in 2001 to enforce the long-term groundwater monitoring requirements.

**Migration of Contaminated Groundwater Under Control**  
**Environmental Indicator (EI) RCRIS code (CA750)**  
Page 8

8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

  X   YE - Yes, "Migration of Contaminated Groundwater Under Control" has been verified. Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the EKCO Housewares, Inc. facility, EPA ID # OHD 045 205 424, located at Massillon, Ohio. Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater" This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

       NO - Unacceptable migration of contaminated groundwater is observed or expected.

       IN - More information is needed to make a determination.

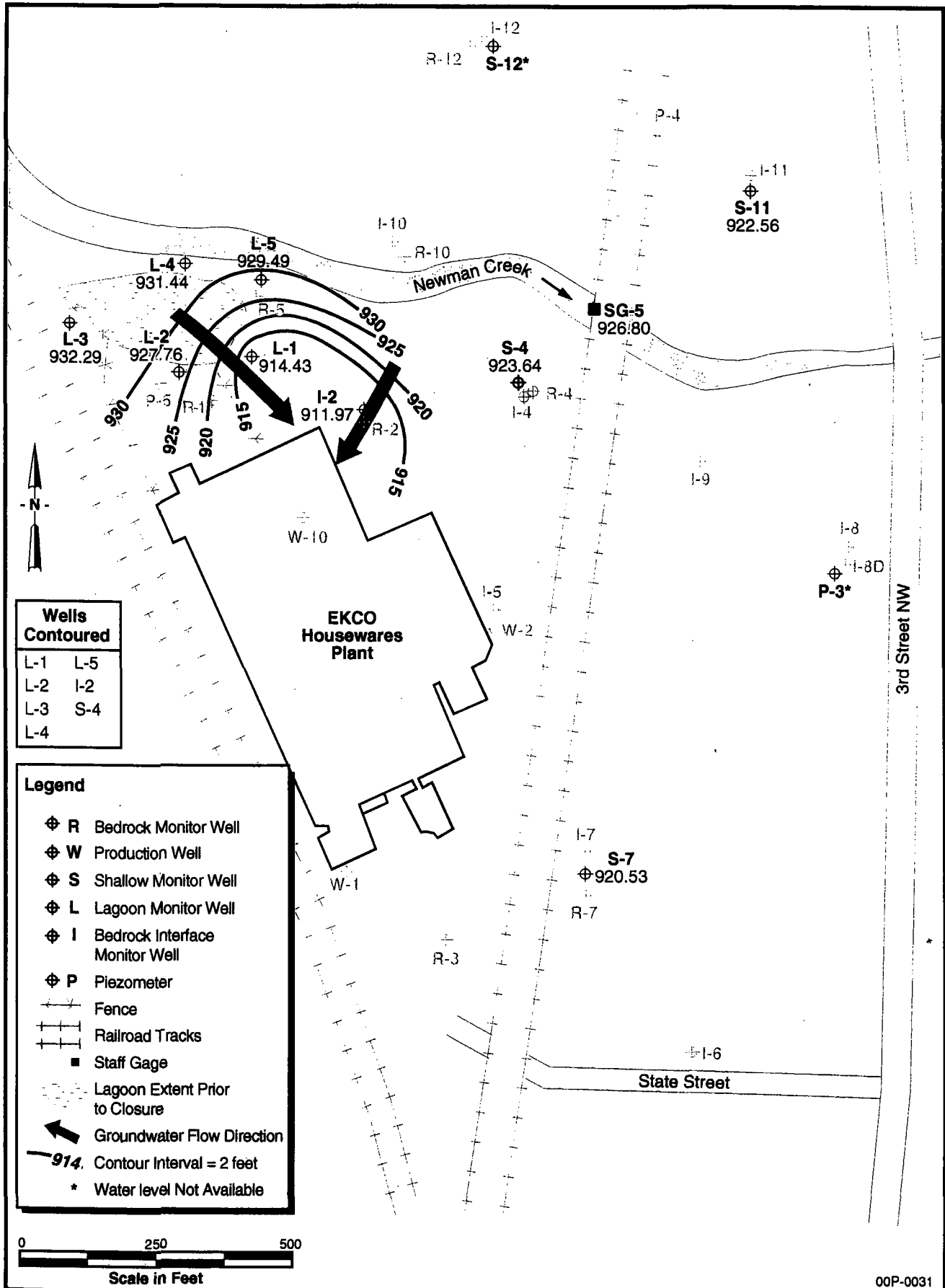
Completed by	(signature) <u>Kenneth S. Bardo</u>	Date <u>12/13/00</u>
	(print) <u>Kenneth S. Bardo</u>	
	(title) <u>Environmental Scientist</u>	
Supervisor	(signature) <u>George Hamper</u>	Date <u>12-29-00</u> <u>12/29/00</u>
	(print) <u>George Hamper</u>	
	(title) <u>Section Chief</u>	
	(EPA Region or State) <u>Region 5</u>	

Locations where References may be found:

RCRA 7<sup>th</sup> Floor File room - Administrative Record for RCRA 3008(h) Consent Order.

Contact telephone and e-mail numbers

(name)	<u>Kenneth S. Bardo</u>
(phone #)	<u>(312) 886-7566</u>
(e-mail)	<u>bardo.kenneth@epa.gov</u>

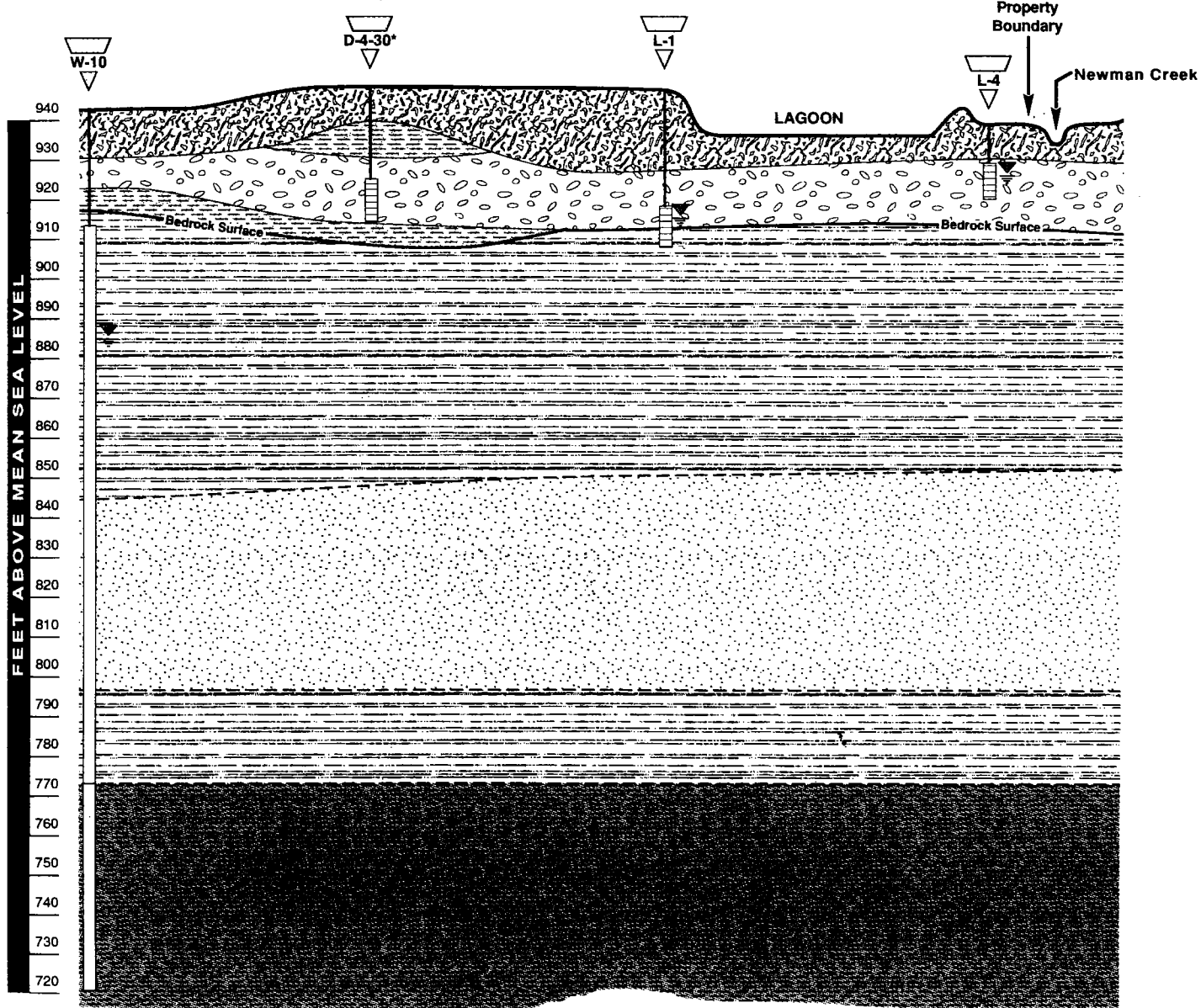


**FIGURE 4-2 GROUNDWATER CONTOUR MAP OF WELLS COMPLETED  
IN THE SHALLOW WATER-BEARING ZONE  
WATER LEVELS MEASURED 24 AUGUST 1999**

**C**  
SOUTH

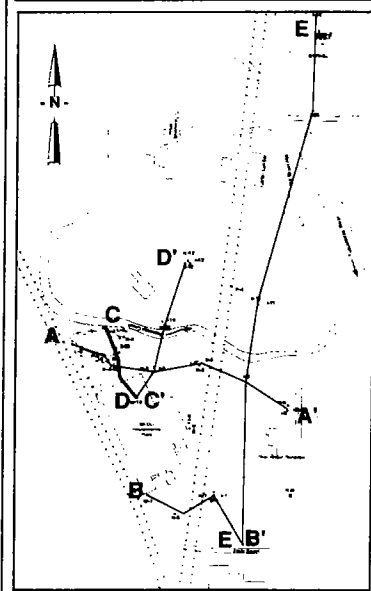
EKCO Site

**C'**  
NORTH



**LEGEND**

- Fill
  - Silt or Clay
  - Sand and Gravel
  - Clay, Sand, Gravel
  - Clay or Silt with Gravel
  - Sand, Gravel, Cobbles
  - Argillaceous Sandstone and Shale
  - Sandstone-Little or No Fines
  - Shale
  - Water Level (Measured 22 October 1991)
  - Screened Interval
  - Open Borehole Interval
  - No Water Level Measured
- 0 75 150 225  
Scale in Feet



**FIGURE 4-21**  
GEOLOGIC CROSS SECTION C-C'  
AT EKCO THE HOUSEWARES PLANT,  
MASSILLON

## DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

### RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725) Current Human Exposures Under Control

Facility Name: EKCO Housewares, Inc.  
Facility Address: 359 State Ave., Ext. N.W., Massillon, OH 44648-0560  
Facility EPA ID #: OHD 045 205 424

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been **considered** in this EI determination?

  X   If yes - check here and continue with #2 below.  
       If no - re-evaluate existing data, or  
       if data are not available skip to #6 and enter "IN" (more information needed) status code.

### BACKGROUND

#### Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

#### Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

#### Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

#### Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).



**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**

Page 2

2. Are groundwater, soil, surface water, sediments, or air media known or reasonably suspected to be "contaminated"<sup>1</sup> above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale / Key Contaminants</u>
Groundwater	X			TCE, 1,1-DCE, 1,2-DCE, 1,1,1-TCA, and VC above Federal MCLs
Air (indoors) <sup>2</sup>		X		Periodic monitoring shows no exceedances of OSHA PELs
Surface Soil (e.g., <2ft)	X			TCE above Industrial PRG
Surface Water		X		Site investigation found no contaminants
Sediment		X		Site Investigation found no contaminants
Subsurf. Soil (e.g., >2ft)	X			TCE and 1,1-DCE above Industrial PRG
Air (outdoors)		X		Air monitoring during site investigation found no detectable VOCs

\_\_\_\_\_ If no (for all media) - skip to #6, and enter "YE," status code after providing or citing appropriate "levels," and referencing sufficient supporting documentation demonstrating that these "levels" are not exceeded.

X If yes (for any media) - continue after identifying key contaminants in each "contaminated" medium, citing appropriate "levels" (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

\_\_\_\_\_ If unknown (for any media) - skip to #6 and enter "IN" status code.

**Rationale and Reference(s):**

- Groundwater under the Facility is contaminated with trichloroethylene (TCE), 1,1-dichloroethylene (1,1-DCE), 1,2-dichloroethylene (1,2-DCE), 1,1,1-trichloroethane (1,1,1-TCA), and vinyl chloride (VC) in concentrations that exceed their respective MCL.
- Site-specific risk-based groundwater screening levels for TCE, 1,1-DCE, 1,2-DCE, and 1,1,1-TCA in soil are exceeded under the manufacturing building. The groundwater screening level for TCE in soil is also exceeded along the west side and just east of the manufacturing building.

<sup>1</sup> "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

<sup>2</sup> Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
Page 3

- Historical data (1988 and 1991) for surface soil shows TCE concentrations exceed the industrial soil PRG (6,100 ppb) along the west side of the manufacturing building. Recent September 2000 sampling, using the new VOCs in soils sampling method, found TCE concentrations that exceed the industrial soil PRG in surface soil under the north end of the manufacturing building and just east of the building.
- September 2000 sampling found subsurface soil along the west side of the manufacturing building, under the building, and just east of the building that exceeds the industrial soil PRG of 6,100 ppb for TCE. Subsurface soil under the building also exceeds the industrial soil PRG of 120 ppb for 1,1-DCE.

Applicable references are the November 1993 Final CMS, the U.S. EPA Region 5, September 1996 Statement of Basis, the November 2000 Soil Investigation Report, and the May 2001 Second Addendum to the CMS.

3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Potential **Human Receptors** (Under Current Conditions)

<b>"Contaminated" Media</b>	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	Food <sup>3</sup>
Groundwater	NO	NO	NO	NO			NO
Soil (surface, e.g., <2 ft)	NO	YES	NO	YES	YES	NO	NO
Soil (subsurface e.g., >2 ft)				YES			NO

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated" as identified in #2 above.
2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("\_\_\_"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

\_\_\_\_\_ If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

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<sup>3</sup> Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.)

**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
Page 4

  X  

If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code.

**Rationale and Reference(s):**

Since 1985, two industrial wells (W-1 and W-10) at the Facility have removed contaminated groundwater that is immediately treated on-site by air stripping. The majority of treated groundwater is discharged to Newman Creek; a smaller portion of the treated groundwater is used on-site in the manufacturing process. There is an incomplete pathway since there is no human exposure to the groundwater contaminants (VOCs) which are removed before the water is used. There is no current or reasonably anticipated use of groundwater for drinking purposes. No other water wells are located in the area of contaminated groundwater. The continuous pumping of the two industrial wells has created a cone of depression that captures on-site groundwater and effectively prevents off-site migration of VOCs.

There are potentially complete pathways for surface and subsurface soil at certain locations at the Facility where TCE and 1,1-DCE exceed the industrial soil PRGs.

Applicable references are the November 1993 Final CMS, the U.S. EPA Region 5, September 1996 Statement of Basis, the March 2000 Groundwater Monitoring Report for 1999, and the May 2001 Second Addendum to the CMS.

4. Can the **exposures** from any of the complete pathways identified in #3 be reasonably expected to be "**significant**"<sup>4</sup> (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

  X  

If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining

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<sup>4</sup> If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
Page 5

complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

\_\_\_\_\_ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

**Rationale and Reference(s):**

The most significant area of contaminated surface and subsurface soil is located under a concrete floor slab in the storage area of the manufacturing building. Exposure is insignificant because of the concrete slab. Any sampling performed in the area is conducted under an appropriate health and safety plan. A health and safety plan will also be in effect during the construction of a soil vapor extraction (SVE) system. The SVE system will remediate contaminated soil to meet industrial soil and soil-to-groundwater leaching PRGs. Appropriate notification will be made to all workers prior to conducting any remediation activities in this area.

Contaminated subsurface soil is located in two areas along the west side of the manufacturing building which is adjacent to an elevated railroad track bed and bluff. Exposure to contaminants is not reasonably expected to be significant because of difficult access, the depth of the contaminated soil (6' to 10'), and the area being overlain by thick gravel. Worker or construction activity has not occurred in the area except during interim remedial activities conducted in the early-1990s and recent environmental sampling. No construction is planned or anticipated other than an SVE system to remediate soil. The SVE system will be installed under an appropriate health and safety plan. Appropriate notification will be made to all workers prior to conducting any remediation activities in the area.

There is a small area located approximately 150' east of the northeast corner of the manufacturing building where the industrial soil PRG for TCE is exceeded in surface and subsurface soil. The soil contamination is located in a grassy area near a flood protection levee along Newman Creek and a truck turn-around. Around-the-clock security is used to prevent trespassing on facility property. No landscaping/maintenance activities are currently conducted in this area nor are any anticipated. If in the future such activities should occur, institutional controls such as fencing, posting, or other health and safety measures will be utilized to prevent significant exposures to workers and trespassers. No construction activities are planned or anticipated in this area other than an SVE system to remediate soil. The SVE system will be installed under an appropriate health and safety plan. Appropriate notification will be made to all workers prior to conducting any remediation activities in the area. This is an isolated area of soil contamination that would represent an insignificant exposure to trespassers and workers.

Applicable references are the November 1993 Final CMS, the U.S. EPA Region 5, September 1996 Statement of Basis, the November 2000 Soil Investigation Report, the January 30, 2001 Response to Comments on the Soil Investigation Report, and the May 2001 Second Addendum to the CMS.

5. Can the "significant" exposures (identified in #4) be shown to be within **acceptable** limits?

\_\_\_\_\_ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
Page 6

- \_\_\_\_\_ If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.
  
- \_\_\_\_\_ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

**Rationale and Reference(s):**

**Current Human Exposures Under Control  
Environmental Indicator (EI) RCRIS code (CA725)**

Page 7

6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

  X   YE - Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the EKCO Housewares, Inc. facility, EPA ID # OHD 045 205 424, located at Massillon, Ohio under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

       NO - "Current Human Exposures" are NOT "Under Control."

       IN - More information is needed to make a determination.

Completed by (signature) Kenneth S. Bardo Date 7/6/01  
(print) Kenneth S. Bardo  
(title) Environmental Scientist

Supervisor (signature) George Hamper Date 10/1/01  
(print) George Hamper  
(title) Section Chief  
(EPA Region or State) Region 5

Locations where References may be found:

RCRA 7<sup>th</sup> Floor File Room - Administrative Record for RCRA 3008(h) Consent Order.

Contact telephone and e-mail numbers

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**FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.**